

BAYTECH Corporation

Baytech Light-, Medium-, and and Heavy-Duty Gaseous Fuel Fuel Systems

Presented by:
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Baytech Corporation Overview

- Baytech has been engineering, certifying, manufacturing, and marketing NGV fueling system technology since 1991
- Earned reputation as leader in high performance CNG fuel injection systems for Chevrolet, GMC, and Isuzu models
- We have now applied our gaseous fueling system technology to propane and HCNG with great success

Applications

- Our Customer's Applications:
 - Taxi, Paratransit, Bus and Shuttle Vehicles
 - Airport Service Vehicles
 - Utility, Refuse, Streetsweeper Vehicles
 - Delivery Fleets
 - Government/Military Fleets
 - Personal Vehicles
- Dedicated CNG or Dual-fuel (CNG or gasoline)
- Dedicated Propane or Dual-fuel (propane or gasoline)
gasoline)

Baytech System Benefits

- Baytech launched sequential Multi-Port Fuel Injection Injection system in 2004
 - More precise fuel control for emissions and performance performance
- Baytech uses no add-on computers. Engine calibration calibration software implemented in OEM computer computer
 - Compatibility with other vehicle systems
 - No false signals to “fool” diagnostic systems
- EPA and CARB certified
 - SULEV, ULEV, LEV, ILEV, CARB OBDII approval

Baytech Sequential Multi-Port Fuel Injection Systems



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Serving Fleet Customers

- Baytech must be more selective in vehicle product offerings than in the past
 - Escalating engineering, testing and certification costs
- In 2006 we will focus on a smaller portfolio of vehicle/engine types that are in greatest demand by demand by our fleet customers
 - Must have purchase commitments for 20 or more for each each specific vehicle/engine type
 - Combining multiple customer's purchase plans can make a make a product offering viable

Serving Fleet Customers (cont.)

- Baytech works with GM and Isuzu dealers, national national installers (BAF), and regional installers
 - All are trained by Baytech on installation procedures and and provide vehicle service
 - These organizations are a key element in defining our product development plans
- Several large fleet customers perform their own installations

2005 Product Line-up

- 8.1L C2500/3500 (CNG and Propane)
- 8.1L C4500/5500 (CNG and Propane)
- 8.1L C6500/7500/8500 (CNG and Propane)
- 8.1L Workhorse Chassis (CNG and Propane)
- 6.0L C2500/3500 (CNG and Propane)
- 6.0L W Series, Isuzu NPR (CNG and Propane)
- 6.0L G1500/2500/3500 Express/Savana Vans (CNG)
- 6.0L Suburban/Yukon XL SUVs (CNG)
- 6.0L Workhorse Chassis (CNG and Propane)
- 4.3L Astro/Safari Mini Van (CNG)
- 4.3L C1500 Sierra/Silverado (CNG)
- 4.3L Blazer SUV (CNG)

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2006 Product Plans

Medium and Heavy-Duty

■ CNG and Propane

- 8.1L C2500/3500 (EPA complete)
- 8.1L C4500/5500 (EPA and CARB complete)
- 8.1L C6500/7500/8500 (EPA and CARB complete)
- 8.1L Workhorse Chassis (EPA, CARB complete)
- 6.0L C2500/3500
- 6.0L W3500, Isuzu NPR
- 6.0L W4500, Isuzu NPR HD
- 6.0L G1500/2500/3500 Express/Savana Vans
- 4.3L C1500 Sierra/Silverado (CNG)

GMC C4500/5500 Series 8.1L CNG and Propane Models



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C4500/5500 Cutaway Bus (8.1L) CNG and Propane Models



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C4500/5500/6500/7500/8500 (8.1L) TopKick/Kodiak



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GMC W3500 (6.0L)

GMC W4500 Series (6.0L)



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Isuzu NPR (6.0L)

Isuzu NPR HD Series (6.0L)



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HD Utility Vehicles (6.0L & 8.1L)



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Express/Savana Van (6.0L)



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Van Cutaway Bus/Truck (6.0L)



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Silverado/Sierra/C/K

(4.3L, 6.0L, 8.1L)



GM Alternative Fuel Conversion- Ready Engine Standard on 8.1L, 6.0L W series,

Must Order on 6.0L Van and Pick-ups, Cab&Chassis



Pictured: 2005 Express Passenger Van 3500
Extended Wheelbase



Your Vehicle:	2005 Express Passenger 3500
Selected Style:	RWD Base 1SA
Exterior:	Berry Red Metallic
Interior:	Medium Dark Pewter Custom Cloth
Total MSRP:	\$30,859.20
MSRP*	\$30,859.20
Color & Options:	\$0.00
Total MSRP*	\$30,859.20
Dealer Installed:	\$0.00
Accessories:	\$0.00



A GM BuyPower Manager can locate this vehicle and give you a no-obligation price quote.

BUILD YOUR OWN: Summary

Type

• RWD

Style

- 12-passenger seating
- 31-gal. (approx.) fuel tank
- Air conditioning
- AM/FM stereo
- Swing-out 60/40 passenger-side door
- StabiliTrak Vehicle Stability Enhancement System
- Tow/Haul mode
- Vortec 6000 V8 engine

Color

Exterior: Berry Red Metallic
Interior: Medium Dark Pewter Custom Cloth

Options and Packages

• Air bags, frontal, driver and right front passenger	\$0.0
• Air conditioning, front manual	\$0.0
• Alternative fuel conversion-ready engine, includes internal modifications for operation with natural or propane gas	\$850.0
• Alternator, 105 amps	\$0.0
• Body, standard	\$0.0
• Engine, Vortec 6000 V8 SFI, (300 HP [223.8 kW] @ 4400 rpm, 360 lb.-ft. [486.6 N-m] @ 4000 rpm)	\$0.0
• Express access discount	\$0.0
• Floor covering, Black rubberized vinyl full length floor covering	\$0.0
• GVWR, 9600 lbs. (4354 kg)	\$0.0
• Glass, rear cargo door windows, swing-out	\$0.0
• Mirrors, outside rearview, manual folding, Black	\$0.0
• Rear axle, 3.73 ratio	\$0.0
• Tire, spare LT245/75R16E, all-season, blackwall, located at rear underbody of vehicle	\$0.0
• Transmission, 4-speed automatic, heavy-duty, electronically controlled with overdrive, tow/haul mode and internal transmission oil cooler	\$0.0

**Hardened valves
and valve seats for
durability on gaseous fuels**

**ORDER
KL5
option**

*Tax, title, and license extra

Astro/Safari Van (4.3L) S10/Sonoma Pick-up/Blazer SUV



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Baytech Partnerships

- CNG fueling station/fuel supplier Clean Energy purchased vans equipped with Baytech CNG system to use in marketing efforts
 - Provided vehicles to Baytech for certification testing
- Baytech is forming similar partnerships with propane propane suppliers
- BAF Technologies is a Baytech national installer
 - Nationwide marketing, sales and support for CNG and propane
 - Alliances with bus manufacturers

Baytech Partnerships (cont.)

- Texas Commission on Environmental Quality awarded Baytech a grant to modify CNG system for propane fuel and emissions test HD 8.1L and 6.0L 6.0L engines
 - Makes commercialization feasible by sharing cost of very expensive HD engine dynamometer testing
 - Provides propane users with certified systems to purchase that purchase that qualify for incentive programs

Hydrogen-CNG Blends

- Baytech developed preliminary 8.1L engine calibration for 20% HCNG blend
 - Implemented on Baytech's C4500 Development Truck
- Conducted road testing (altitude, hot/cold in Reno Reno and Palm Springs)
- Conducted baseline emission testing using the HD HD Transient Engine Dynamometer Certification Certification Test

Hydrogen-CNG Blends (cont.)

- HCNG NO_x Emission Control Strategies
 - Baseline - Stoichiometric with 3-way Catalyst
 - Stoichiometric with 3-Way Catalyst and EGR
 - Lean Burn with Turbo/Supercharger

- Based on this preliminary work, Baytech is confident that we can develop and certify HCNG engines using Baytech sequential MPFI system with additional funding

Government & Industry Advocate Roles

- Government and industry advocates must continue key roles in deploying vehicles
 - Lead by example -- expand your CNG/propane fleets!
- Incentives for CNG and propane users
 - Incremental vehicle cost and fueling station subsidies
- R&D programs for near-term, cost-effective technology aimed at significantly boosting CNG/propane vehicle deployment
- Grants to offset high costs of certification testing
 - Will enable broader product offerings to meet customer needs cost-effectively
- Joint marketing efforts